

RESEARCH, DEVELOPMENT & TECHNOLOGY TRANSFER QUARTERLY PROGRESS REPORT

Wisconsin Department of Transportation
DT1241 02/2011

INSTRUCTIONS:

Research project investigators and/or project managers should complete a quarterly progress report (QPR) for each calendar quarter during which the projects are active.

WisDOT research program category: <input type="checkbox"/> Policy research <input type="checkbox"/> Other <input checked="" type="checkbox"/> Wisconsin Highway Research Program <input type="checkbox"/> Pooled fund TPF#		Report period year: 2013 <input checked="" type="checkbox"/> Quarter 1 (Jan 1 – Mar 31) <input type="checkbox"/> Quarter 2 (Apr 1 – Jun 30) <input type="checkbox"/> Quarter 3 (Jul 1 – Sep 30) <input type="checkbox"/> Quarter 4 (Oct 1 – Dec 31)
Project title: Evaluation of the Foundation Movements of Transportation Structures		
Project investigator: Dante Fratta	Phone: 608-265-5644	E-mail: fratta@wisc.edu
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WisDOT project ID: 0092-09-05	Other project ID:	Project start date: 2/5/2009
Original end date: 2/5/2012	Current end date: 3/30/2013	Number of extensions: 1

Project schedule status:

☐ On schedule ☐ On revised schedule ☐ Ahead of schedule ☒ Behind schedule

Project budget status:

Total Project Budget	Expenditures Current Quarter	Total Expenditures	% Funds Expended	% Work Completed
\$109,893.00	\$7,122.00	\$90,015.34	85%	87%

Project description:

The overall research objective of this study is to produce a document summarizing simplified design procedures for evaluation of foundation movements for transportation structures within the LRFD framework.

Recommendations for the measurement methods of input parameters for those design procedures will also be provided.

Progress this quarter:

- PhD student Max Garnier Villarreal has been working in this project and has been collecting deformation data from different bridges.

- In the last two quarters, Mr. Garnier has installed survey targets in new bridges being built on State Highway 51 in Sun Prairie. The research team performed recognition and installed survey markers and other deformation instrumentation at the site. Survey markers were installed in several bridges on these sites and measurements have been taken to evaluate the deformation of the structures over the winter before the bridges are open to traffic. However, during the winter the reference marker used by the contractor were removed and we had to installed new markers to start the measurements once again.

- Mr. Garnier installed new reference points and continue collecting data. He will installed new surveying targets as the other bridges are built.

Anticipated work next quarter:

Field monitoring will continue to be the focus for the next quarter, building up a larger database of the deformation, to analyze the behavior of the bridges, abutments, and foundation structures over a longer period of time.

Circumstances affecting project or budget:

The research team was given access to a construction site on Highway 51 where several bridge structures are being built. The access to these bridges is of utmost importance to the progress of this project and will allow the research team to make progress toward the completion of this project. We will be monitoring bridge deformations while to bridge opens to traffic. We will also be installing new reference points as installed targets are being removed/replace during construction.

Attach / insert Gantt chart and other project documentation

FOR WISDOT USE ONLY

Staff receiving QPR:	Date received:
Staff approving QPR:	Date approved: